

University of Groningen

Generalized genetical genomics

Li, Yang

IMPORTANT NOTE: You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.

Document Version

Publisher's PDF, also known as Version of record

Publication date:

2010

[Link to publication in University of Groningen/UMCG research database](#)

Citation for published version (APA):

Li, Y. (2010). *Generalized genetical genomics: advanced methods and applications*. s.n.

Copyright

Other than for strictly personal use, it is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), unless the work is under an open content license (like Creative Commons).

The publication may also be distributed here under the terms of Article 25fa of the Dutch Copyright Act, indicated by the "Taverne" license. More information can be found on the University of Groningen website: <https://www.rug.nl/library/open-access/self-archiving-pure/taverne-amendment>.

Take-down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

Downloaded from the University of Groningen/UMCG research database (Pure): <http://www.rug.nl/research/portal>. For technical reasons the number of authors shown on this cover page is limited to 10 maximum.

Publications

- Li Y*, Tesson BM*, Churchill GA and Jansen RC (2010) *Critical reasoning on causal inference in genome-wide linkage and association studies* **Trend Genet** (in press). * Equal contribution
- Tesson BM*, Li Y*, Breitling R, and Jansen RC (2010) *Scaling up classical genetics to thousands of molecular traits: promises and challenges* **Proceedings of the 9th World Congress of Genetics Applied to Livestock Production** 0985.
* Equal contribution
- Li Y, Breitling R, Snoek B, van der Velde KJ, Swertz M, Riksen J, Jansen RC and Kammenga JEC (2010) *Global genetic robustness of the alternative splicing machinery in C. elegans*, **Genetics** 186:405.
- Li Y, Swertz M, Vera G, Fu J, Breitling R and Jansen RC (2009) *designGG: an R-package and Web tool for the optimal design of genetical genomics experiments*, **BMC Bioinformatics** 10:188.
** Highly accessed paper
- Gerrits A*, Li Y*, Tesson BM*, Bystrykh LV, Weersing E, Dethmers-Ausema B, Dontje B, Wang X, Breitling R, Jansen RC and de Haan G (2009) *Expression quantitative trait loci are highly sensitive to cellular differentiation state*, **PLoS genetics** 5:e1000692.
* Equal contribution
** Highlight in **Nature Rev Genet** 10:819
- Li Y, Breitling R and Jansen RC (2008) *Generalized genetical genomics - the added value from experimental perturbation*, **Trend Genet** 24:518–524

- **Li Y***, Alvarez OA*, Gutteling EW, Tijsterman M, Fu J, Riksen JAG, Hazendonk E, Prins P, Plasterk RHA, Jansen RC, Breitling R and Kammenga JEC (2006) *Mapping determinants of gene expression plasticity by genetical genomics in C. elegans*, **PLoS Genetics** 2:e222. doi:10.1371/journal.pgen.0020222.
* Equal contribution
** Faculty of 1000 Biology EXCEPTIONAL paper
- Breitling R, **Li Y**, Tesson B, Fu J, Wu C, Wiltshire T, Gerrits A, Bystrykh LV, de Haan G, Su AI and Jansen RC (2008) *Genetical genomics: spotlight on QTL hotspots*, **PLoS Genetics** 4:e1000232. doi:10.1371/journal.pgen.1000232
- Biehl M, Breitling R and **Li Y**, (2007) *Analysis of tiling micorarray data by learning vector quantization and relevance learning*, **IDEAL: Lecture Notes in Computer Science** 4881: 880-889
- Albert R, Terpstra P, **Li Y**, Breitling R, Nap JP and Jansen RC (2007) *Sequence polymorphisms cause many false cis eQTLs*, **PLoS One** 7: e622. doi: 10.1371/journal.pone.0000622
- Korstanje R, Desai J, Lazar G, Rollins J, Spurr M, Joseph J, Kadambi S, **Li Y**, Cherry A, Paigen B and Millonig JH (2008) *Localization of modifier loci of the vacuolated lens mutant, a mouse model for spina bifida and congenital cataracts*, **Physiol Genomics** 35: 296-304

Awards

- 2008 Chinese Government Award for Outstanding Student Abroad
- 2009 First Prize for Best Poster at 17th Annual GBB Symposium, Groningen, The Netherlands

Publications before PhD study

- Li Y, Jiang JH, Wu HL, Chen ZP and Yu RQ (2000) *Alternating Coupled Matrices Resolution Method for Three-way Arrays Analysis*, **Chemom. Intell. Lab. Syst.** 52: 33-43
- Li Y, Jiang JH, Chen ZP, Xu CJ, and Yu RQ (1999) *Robust Linear Discriminant Analysis for Pattern Recognition*, **J. Chemom.** 13: 3-13
- Li Y, Jiang JH, Chen ZP, Xu CJ, and Yu RQ (1999) *A New Method Based on Counter-propagation Network Algorithm for Chemical Pattern Recognition*, **Anal. Chimi. Acta** 388: 161-170
- Xu CJ, Liang YZ, Li Y and Du YP (2003) *Chemical Rank Estimation by Noise Perturbation in Functional Principal Component Analysis*. **Analyst** 128: 75-81.
- Chen ZP, Li Y, and Yu RQ (2001) *Pseudo Alternating Least Squares Algorithm for Trilinear Decomposition*, **J. Chemom.** 15: 149-167.
- Chen ZP, Wu HL, Li Y, and Yu RQ (2000) *Novel Constrained PARAFAC Algorithm for Second Order Linear Calibration*, **Anal. Chimi. Acta** 423: 187-196.
- Jiang JH, Wu HL, Li Y, and Yu RQ (2000) *Three-way Data Resolution by Alternating Slice-wise Diagonalization Method*, **J. Chemom.** 14: 15-36.
- Chen ZP, Wu HL, Jiang JH, Li Y, and Yu RQ (2000) *A Novel Trilinear Decomposition Algorithm for Second-order Linear Calibration*, **Chemom. Intell. Lab. Syst.** 52: 75-86.
- Chen ZP, Jiang JH, Li Y and Yu RQ (1999) *Nonlinear Mapping Using Real-valued Genetic Algorithm*, **Chemom. Intell. Lab. Syst.**, 45: 409-418.
- Chen ZP, Jiang JH, Li Y, Shen HL, Liang YZ and Yu RQ (1999) *Smoothed Window Factor Analysis*, **Anal. Chimi. Acta** 381: 233-246
- Jiang JH, Wu HL, Li Y, and Yu RQ (1999) *Alternating Coupled Vectors Resolution For Trilinear Analysis of Three-way Data*, **J. Chemom.** 13: 557-578.
- Chen ZP, Liang YZ, Jiang JH, Li Y, Qian JY and Yu RQ (1999) *Determination of the Number of Components in Mixture Using a New Approach Incorporating Chemical Information*, **J. Chemom.** 13: 15-30.

- Chen ZP, Jiang JH, Li Y, Liang YZ and Yu RQ (1999) *Fuzzy Linear Discriminant Analysis for Chemical Data sets*, **Chemom. Intell. Lab. Syst.** 45: 295-302.
- Wang JH, Jiang JH, Xiong JF, Li Y, Liang YZ and Yu RQ (1998) *Chemical Rank Estimation for Excitation-emission Matrices Using a Morphological Approach*, **J. Chemom.** 12: 95-104.

Selected conference contributions

- Aug 1-6, 2010 **9th World congress on Genetics applied to livestock production** (Leipzig, Germany), Invited talk: *Scaling up classical genetics to thousands of molecular traits: promises and challenges*
- Nov 2, 2009 **UK Plant QTL Workshop** (Warwick, UK). Invited talk: *eQTLs and QTL network*
- Oct 1-2, 2009 **Systems Genetics: from man to microbe, from genotype to phenotype** (Groningen, NL). Selected talk: *Causal inference in genome-wide association and linkage studies: the road ahead to systems genetics*
- Sept 21-23, 2009 **European Conference on Complex Systems 2009** (Warwick, UK). Selected talk: *Causal inference in genome-wide association and linkage studies: the road ahead to systems genetics*
- May 3-5, 2009 **8th Annual Complex Trait Consortium Conference** (Manchester, UK). Selected talk: *Critical reasoning on causality: extreme accuracy and large sample sizes will be needed in systems genetics*
- June 1-3, 2008 **7th Annual Complex Trait Consortium Conference** (Montreal, Canada). Selected talk: *Generalized genetical genomics – the added value from experimental perturbation*
- May 31, 2008 **Quebec Transgenic Research Network– satellite symposium** (McGill University, Canada) Invited talk: *Generalized genetical genomics*
- March 25-30, 2007 **Similarity-based Clustering Seminar** (Schloss Dagstuhl, Germany). Selected talk: *Analyzing genome tiling microarrays for the detection of novel expressed genes*
- Oct 17-18, 2006 **2nd BENELUX Bioinformatics conference** (Wageningen, The Netherlands). Selected talk: *Mapping Determinants of Gene Expression Plasticity by Genetical Genomics in C. elegans*